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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,305	12/12/2001	Erik Laridon	5383	5658

7590 10/07/2003
Milliken & Company
P. O. Box 1927
Spartanburg, SC 29304

EXAMINER

WANG, SHENGJUN

ART UNIT PAPER NUMBER

1617

DATE MAILED: 10/07/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/015,305

Applicant(s)

LARIDON ET AL.

Examiner

Shengjun Wang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 33-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. Receipt of Applicants' amendments and remarks submitted July 24, 2003 is acknowledged.

Clam Rejections 35 U.S.C. 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 33-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lever (US 6,187,456), in view of Koji et al. (JP 406136233, with English abstract).

2. Lever teaches an antimicrobial plastic article comprising a polymer, a silver zirconium phosphate antimicrobial compounds and about 0.08% by weight of calcium stearate. See, particularly, the example 2 in column 2. The polymer may be polyolefin, such as polypropylene and polyethylene. See the examples.

3. Lever does not teach expressly to employ the particular amount of calcium stearate herein. (0.1-1.25%, 0.2-1.0% or 0.3%).

4. However, Koji et al. teaches that fatty acid salts, particularly, calcium stearate, are known to be useful in antimicrobial plastic article as lubricant in the amounts of 0.01-10% by weight, and preferably 0.1-5% by weight. See particularly, the abstract, and column 9, lines 28-39.

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Therefore, it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed the invention was made, to employ calcium stearate in the amounts herein claimed.

A person of ordinary skill in the art would have been motivated employ calcium stearate in the amounts herein claimed because the amounts herein employed are within the range of known preferable amounts in a antimicrobial plastics article. The optimization of a result effective parameter, e.g., the amount of a known ingredient in a composition, is considered within the skill of the artisan. See, In re Boesch and Slaney (CCPA) 204 USPQ 215.

5. Claims 33-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koji et al. (JP 406136233, with English abstract).

6. Koji et al teach an antimicrobial resin comprising a polymer, an antimicrobial composition which comprising silver zirconium phosphate, and fatty acid metal salts, such as calcium stearate, as lubricants. See, the abstract. The amounts of lubricant is 0.01-10% by weight, and preferably 0.1-5% by weight. See particularly, the abstract, and column 9, lines 28-39. The polymer employed herein may be styrenic. See, the abstract and column 4, lines 34-50. Note styrenic polymer would read on polyolefin herein. See, page 6, the first paragraph in the specification herein.

7. Koji does not teach expressly to employ the particular amount of calcium stearate herein. (0.1-1.25%, 0.2-1.0% or 0.3%).

However, Therefore, it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed the invention was made, to employ calcium stearate in the amounts

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herein claimed because such amount is with the range of Koji's referred amounts. The optimization of a result effective parameter, e.g., the amount of a known ingredient in a composition, is considered within the skill of the artisan. See, In re Boesch and Slaney (CCPA) 204 USPQ 215.

Response to the Arguments

Applicants' amendments and arguments submitted July 24, 2003 have been fully considered, but are not persuasive with respect to the rejection set forth above.

Regarding the remarks about Lever reference (US 6,187,456), note Lever reference (US 6,187,456) is published on February 13, 2003, before the effective filing date of instant application. Therefore, Lever reference (US 6,187,456) qualifies as reference under 35 U.S.C. 102 (a), which could not be disqualified as a prior art by the statement submitted herein. See, 35 U.S.C. 103(c).

Applicants argue that the instant claims are not obvious over Koji because Koji are limited to rubber-reinforced styrenic resins, and the instant claims require polyolefin resin. The arguments are not persuasive. First, Koji are not limited to rubber-reinforced styrenic resins, but may encompass other thermoplastic polymers, such as polystyrene. See, column 4, lines 34-50. Further, the polyolefin herein would read on styrenic polymers, including rubber-enforced styrenic resins and polystyrene. See page 6 in the instant specification.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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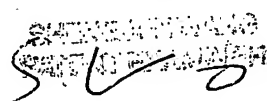
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shengjun Wang, Ph.D. whose telephone number is (703) 308-4554. The examiner can normally be reached on Monday-Friday from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan, can be reached on (703) 305-1877. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Patent Examiner



Shengjun Wang

9/24/03



RUSSELL TRAVERS
PRIMARY EXAMINER